

## CLAIMS

1. A method of treating weight loss due to underlying disease in a patient  
the method comprising administering to the patient an effective amount of an  
agent which reduces sympathetic nervous system activity and/or improves  
cardiovascular reflex status.  
  
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2. A method according to Claim 1 wherein the agent which reduces  
sympathetic nervous system activity is any one or more of the following: a  
compound which inhibits the effect of aldosterone such as an aldosterone  
antagonist; a chymase inhibitor; a cathepsin inhibitor; a  $\beta$  receptor blocker; an  
imidazoline receptor antagonist; a centrally acting  $\alpha$  receptor antagonist; a  
peripherally acting  $\alpha$  receptor antagonist; a ganglion blocking agent; a drug that  
has an effect on cardiovascular reflexes and thereby reduce SNS activity such as  
10 an opiate; scopolamine; endothelin receptor antagonist; a xanthine oxidase  
inhibitor; and erythropoietin.  
  
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3. A method of treating weight loss due to underlying disease in a patient  
the method comprising administering to the patient an effective amount of a  
compound which inhibits the effect of aldosterone, such as an aldosterone  
antagonist.  
  
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4. A method according to Claim 3 wherein the compound which inhibits  
the effect of aldosterone is any one of spironolactone, testolactone, RU40555,  
RU26752, canrenoate, eplerenone, 3-(17 $\beta$ -hydroxy-3-oxoandrosta-1,4,6,11-  
25 tetraen-17 $\alpha$ -yl) propionic acid  $\gamma$  lactone, 3-(9- $\alpha$ -fluoro-17 $\beta$ -hydroxy-3-oxo-  
androsta-4-en-17 $\alpha$ -yl) propionic acid  $\gamma$  lactone, dihydro-spiorenone,  
spiorenone, 15,16-methylene derivatives of spironolactone, mespirenone and  
SC9420.  
  
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5. A method of treating weight loss due to underlying disease in a patient  
the method comprising administering to the patient an effective amount of a  
chymase inhibitor.

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6. A method according to Claim 5 wherein the chymase inhibitor is any one  
of alendronate, aprotinin and tissue inhibitors of matrix metalloproteinases.

7. A method of treating weight loss due to underlying disease in a patient  
10 the method comprising administering to the patient an effective amount of a  
cathepsin inhibitor.

8. A method according to Claim 7 wherein the cathepsin B inhibitor is any  
one of an epoxysuccinyl peptide such as CA-074 or E64-c, stefin A and cystatin  
15 C.

9. A method of treating weight loss due to underlying disease in a patient  
the method comprising administering to the patient an effective amount of a  $\beta$   
receptor blocker.

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10. A method according to Claim 9 wherein the  $\beta$  receptor blocker is any one  
of acebutolol, alprenolol, atenolol, betaxolol, bisoprolol, carteolol, celiprolol,  
esmolol, labetolol, lavobunolol, metipranolol, metoprolol, nadolol, oxprenolol,  
penbutolol, pindolol, propanolol, sotalol, timolol, nebivolol, carvedilol and  
25 bucindolol.

11. A method of treating weight loss due to underlying disease in a patient  
the method comprising administering to the patient an effective amount of an  
imidazoline receptor antagonist.

12. A method according to Claim 11 wherein the imidazoline receptor antagonist is any one of moxonidine, rilmenidine, pentamidine and  $\alpha$ -methyl dopa.

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13. A method of treating weight loss due to underlying disease in a patient the method comprising administering to the patient an effective amount of a centrally acting  $\alpha$  receptor agonist.

10 14. A method according to Claim 13 wherein the centrally acting  $\alpha$  receptor agonist is clonidine.

15 15. A method of treating weight loss due to underlying disease in a patient the method comprising administering to the patient an effective amount of a peripherally acting  $\alpha$  receptor antagonist.

16. A method according to Claim 15 wherein the peripherally acting  $\alpha$  receptor antagonist is any one of doxazosin, prazosin, terazosin and ipsapirone.

20 17. A method of treating weight loss due to underlying disease in a patient the method comprising administering to the patient an effective amount of a ganglion blocking agent.

25 18. A method according to Claim 17 wherein the ganglion blocking agent is any one of azamethonium, dicolinium, hexamethonium, mecamylamine, pentamethonium, pentolinium, trimetaphan, benzohexonium, hexafluorenium, cypenam, trimethaphan canfosculfonate, tetraethylammonium bromide and synapleg.

19. A method of treating weight loss due to underlying disease in a patient  
the method comprising administering to the patient an effective amount of a  
drug that has an effect on cardiovascular reflexes and thereby reduces SNS  
activity.

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20. A method of treating weight loss due to underlying disease in a patient  
the method comprising administering to the patient an effective amount of an  
opiate.

10 21. A method according to Claim 20 wherein the opiate is any one of  
dihydrocodeine, morphine, diamorphine and buprenorphine.

15 22. A method of treating weight loss due to underlying disease in a patient  
the method comprising administering to the patient an effective amount of  
scopolamine.

23. A method of treating weight loss due to underlying disease in a patient  
the method comprising administering to the patient an effective amount of an  
endothelin receptor antagonist.

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24. A method according to Claim 23 wherein the ET-1 receptor antagonist is  
any one of butenolide, BQ123, BQ-788, A-216546, ABT-627, IRL3461,  
LU135252, S-0139, T-0201, PD 142,893, PD 164333, RO 61-1790, PD  
156,707, SB 209670, IRL 1038 and WS-7338 B.

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25. A method of treating weight loss due to underlying disease in a patient  
the method comprising administering to the patient an effective amount of a  
xanthine oxidase inhibitor.

26. A method according to Claim 25 wherein the xanthine oxidase inhibitor is any one of allopurinol, 7,8-dihydronoopterin, 5,6,7,8-tetrahydrobiopterin, leukopterin, xanthopterin, neopterin, biopterin, 4-amino-6-hydroxypyrazolo[3,4-d]pyrimidine (AHPP) and oxypurinol.

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27. A method of treating weight loss due to underlying disease in a patient the method comprising administering to the patient an effective amount of erythropoietin.

10 28. A method of treating weight loss due to underlying disease in a patient the method comprising electrically stimulating the patient's muscles.

29. A method according to any one of the preceding claims wherein the underlying disease is any one of AIDS, liver cirrhosis, chronic obstructive pulmonary disease with or without emphysema, chronic renal failure, chronic infections, cancer, heart disease including hypertension and chronic heart failure.

15 30. A method according to any one of Claims 1 to 29 wherein the patient has idiopathic cachexia.

20 31. A method according to any one of Claims 1 to 29 wherein the underlying disease is chronic heart failure and the patient has cardiac cachexia.

32. Use of a compound as defined in any one of Claims 1 to 36 in the manufacture of a medicament for treating weight loss due to underlying disease.

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33. Use according to Claim 32 wherein the underlying disease is as defined in Claim 28.

34. Use of a compound as defined in any one of Claims 1 to 36 in the manufacture of a medicament for treating idiopathic cachexia.

35. A method of treating or preventing weight loss due to the ageing process  
5 in a patient the method comprising administering to the patient an effective amount of an agent which reduces sympathetic nervous system activity.

36. A method of treating or preventing weight loss due to the ageing process  
in a patient the method comprising administering to the patient an effective  
10 amount of any one or more of a compound which inhibits the effect of aldosterone such as an aldosterone antagonist; a chymase inhibitor; a cathepsin inhibitor; a  $\beta$  receptor blocker; an imidazoline receptor antagonist; a centrally acting  $\alpha$  receptor antagonist; a peripherally acting  $\alpha$  receptor antagonist; a ganglion blocking agent; a drug that has an effect on cardiovascular reflexes and  
15 thereby reduce SNS activity such as an opiate, a digitalis alkaloid, scopolamine; an endothelin receptor antagonist; a xanthine oxidase inhibitor; and erythropoietin.

37. A method of treating or preventing weight loss due to the ageing process  
20 in a patient the method comprising electrically stimulating the patient's muscles.

38. A method of enhancing exercise performance in a healthy patient the method comprising administering to the individual an effective amount of an agent which reduces sympathetic nervous system activity.

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39. A method of enhancing exercise performance in a healthy individual the method comprising administering the individual an effective amount of any one or more of a compound which inhibits the effect of aldosterone such as an aldosterone antagonist; a chymase inhibitor; a cathepsin inhibitor; a  $\beta$  receptor

blocker; an imidazoline receptor antagonist; a centrally acting  $\alpha$  receptor antagonist; a peripherally acting  $\alpha$  receptor antagonist; a ganglion blocking agent; a drug that has an effect on cardiovascular reflexes and thereby reduce SNS activity such as an opiate; a digitalis alkaloid; scopolamine; an anabolic 5 growth factor like growth hormone and insulin-like growth factor-I (IGF-I); an endothelin receptor antagonist; a TNF $\alpha$  antagonist; a xanthine oxidase inhibitor; and erythropoietin.

40. A method of enhancing exercise performance in a healthy patient the  
10 method comprising electrically stimulating the patient's muscles.

41. A method of preventing weight loss consequent to a cardiovascular disorder in a patient at risk of heart disease the method comprising administering to the patient an effective amount of any one or more of a compound with an inhibiting effect on aldosterone; a  $\beta$ -receptor blocker; an imidazoline receptor 15 antagonist; a centrally acting  $\alpha$  receptor agonist; a peripherally acting  $\alpha$  receptor antagonist; and a ganglion blocking agent.

42. Use of a compound as defined in Claim 35 or 36 in the manufacture of a  
20 medicament for treating or preventing weight loss due to ageing in a patient.

43. Use of a compound as defined in Claim 38 or 39 in the manufacture of an agent for enhancing exercise performance in a healthy individual.